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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/101,508 09/30/98 BOYER

J 100983

EXAMINER

PM82/0619

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ALEXANDRIA VA 22320

CHAMBERS, T

ART UNIT

PAPER NUMBER

3641

DATE MAILED:

06/19/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No.	Applicant(s)	
	09/101,508	BOYER ET AL.	
	Examiner	Art Unit	
	Troy Chambers	3641	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-29 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 14-29 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claims ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- | | |
|---|--|
| 15) <input type="checkbox"/> Notice of References Cited (PTO-892) | 18) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____. |
| 16) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 19) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 17) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____. | 20) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The corrected or substitute drawings were received on 2 April 2001. These drawings are acceptable.

Specification

2. The Substitute Specification received on 2 April 01 is acceptable

Claim Rejections - 35 USC § 112

3. The rejection of claims 20 and 21 under 35 U.S.C. 112, 1ST p. has been withdrawn in light of Applicant's response.
4. The rejection of claims 16-29 under 35 U.S.C. 112, 2nd p. has been withdrawn in light of Applicant's claim amendment.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

6. Claims 14 -17 are rejected under 35 U.S.C. 102(b) as being anticipated by Hedberg et al. Hedberg discloses a timing means for timing the action of a firing

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element 4. An electrical power supply supplies a first intensity to the timing means 10. Power generating means 15 & 5 (capacitor 5, switch 16 and decoder 15) is capable of generating a second power intensity (from the capacitor 5) sufficient to actuate the firing element 4 upon expiration of the timing means. The first power intensity used to power the decoder circuit is clearly insufficient to ignite the detonator.

The Applicant's responsive argument to the above rejection is that "nothing in Hedberg et al. teach, disclose or suggest that a first power intensity is insufficient to ignite the detonator as in the claimed invention." However, a reading of the Hedberg patent discloses several devices that ensure a first power intensity sufficient only to charge the capacitor to a desired capacity. The first device is an isolating transformer 17 (col. 3, ll. 49-56). And the second is a limiting circuit 18 (col. 3, ll. 57-64). Both devices serve to limit the incoming voltage from wires 6/7 and the casing 1. Accordingly, this disclosure renders the Applicant's argument unconvincing.

7. With respect to claim 17, the decoder is considered to be a microcontroller.

8. Claims 14-19, 22, 25 and 26 are rejected under 35 U.S.C. 102(e) as being anticipated by Beukes et al. Beukes discloses in Figure 7 a system for priming a detonator having a timing device (see the Background of the Invention) firing element 16 initiated by a capacitor C2, a switching means Q5 and a microcontroller control means. Additionally, the abstract indicates that only the larger voltage from the capacitor will ignite the element 16. In column 7, ll. 45-53.

With respect to Applicant's argument to the above rejection, the Summary of the Invention of Beukes clearly disclose that the device has a designed "no-fire voltage" and

a firing signal with a voltage "which is greater than a designed no-fire voltage". (col. 1, ll. 66-67 and col. 2, ll. 1-25).

9. With respect to claims 22, 25 and 26, Beukes discloses a remote programming means for setting the time delays.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 23 and 24 rejected under 35 U.S.C. 103(a) as being unpatentable over Beukes et al. in view of Jarrott et al.

Although Beukes discloses a "wired" programming means, it is well-known in the art to provide a remote or wireless programming means having photo-transistors for the purpose of reducing wiring as taught by Jarrott et al. It would have been obvious at the time the invention was made to substitute a wired programming means for a remote programming means as taught by Jarrott for the advantage of a wireless system.

12. Claim 27 is rejected under 35 USC 103(a) as being unpatentable over Beukes et al. It has been well established that providing a mechanical means to perform the function of an electrical means and vice-versa are obvious substitutions for the implied advantages of either system.

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13. Claims 28 and 29 are rejected under 35 USC 103(a) as being unpatentable over Beukes in view of Powell.

Powell teaches a booby trap means for detonating the detonator upon breach of the enclosure. It would have been obvious to one having ordinary level of skill in the art to include a booby-trap device on the detonator of Beukes to provide a detonator which would detonate upon breach of the enclosure.

Conclusion

14. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Troy Chambers whose telephone number is (703) 308-

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5870. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael J. Carone, can be reached at (703) 306-4198.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-4177. The fax phone number for the organization where this application or proceeding is assigned is (703) 306-4195.



MICHAEL J. CARONE
SUPERVISORY PATENT EXAMINER